LMSC B030493
Copy 2 of 5

JOINT MESSAGEFORM

SECURITY [redacted]

SPACE BELOW RESERVED FOR COMMUNICATION CENTER

LXIV [redacted]

PRECEDENCE	TYPE MSG (Check)			ACCOUNTING SYMBOL	ORIG. OR REFERS TO	CLASSIFICATION OF REFERENCE
ACTION	BOOK	MULTI	SINGLE			
INFO						

FROM:
6595TH AEROSPACE TEST WING, VANDENBERG AFB, CALIF., VWZD

SPECIAL INSTRUCTIONS

TO:
SPACE SYSTEMS DIV, LOSA, CALIF.

SUBJECT: EIGHT-HOUR FLASH REPORT

I. SUMMARY VWZD 185-235

A VEHICLE CONSISTING OF SLV-2A BOOSTER NO. 364 AND S-01A ORBITAL STAGE NO. 1165 WAS LAUNCHED ON THE FOURTH ATTEMPT FROM VAFB COMPLEX 75-3, PAD 5, AT 152136.38 PDT, ON 18 MAY 1963. THE PRIMARY LAUNCH OBJECTIVE, TO PLACE THE S-01A SATELLITE WITH PAYLOAD IN A NEAR-POLAR ORBIT, WAS ACCOMPLISHED; HOWEVER, THE ORBITAL PERIOD APPEARS TO BE 30 SEC ABOVE NOMINAL. BASED ON FIRST PASS ACQUISITION, THE VTS RADAR PLOTBOARD INDICATED A NEAR-NOMINAL TRAJECTORY UP TO THE TIME OF RADAR FINAL LOSS, APPROXIMATELY 23 SEC BEFORE S-01A ENGINE SHUTDOWN.

[redacted]

DATE 18 May | TIME
MONTH May | YEAR 63

SYMBOL VWAD

SIGNATURE 1st Lt John F. Labella for

WRITER

TYPED NAME AND TITLE (Signature, if required)
1st Lt. C. S. Waller

PHONE 355-[illegible] | PAGE NR. 1 | NR. OF PAGES 8

SECURITY [redacted]

RELEASER

TYPED (or stamped) NAME AND TITLE

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS
DOD DIRECTIVE 5200.10

DD FORM 1 MAY 55 173

JOINT MESSAGEFORM - CONTINUATION SHEET

SECURITY CLASSIFICATION [redacted]

FROM: [redacted]

6595TH AEROSPACE TEST WING, VANDENBERG AFB, CALIF., VWZD

II. SIGNIFICANT EVENTS

PRELIMINARY VALUES OF SIGNIFICANT LAUNCH EVENTS

LIFTOFF (1511:36.38 PDT)	ZERO
WEB BURNOUT ON SOLID MOTORS NO. 1	27.97 SEC
NO. 2	27.47 SEC
NO. 3	27.92 SEC
SOLID MOTOR THRUST TERMINATION NO. 1	41.92 SEC
NO. 2	41.22 SEC
NO. 3	41.22 SEC
SOLID MOTOR SEPARATION SIGNAL	70.47 SEC
SOLID MOTOR JETTISON	70.52 SEC
STEERING INITIATED	92.42 SEC
MECO (S-I)	147.18 SEC
VECO	156.22 SEC
SEPARATION COMMAND (S-2)	160.62 SEC
SEPARATION COMPLETE	163.1 SEC
ULLAGE ROCKET IGNITION	165.18 SEC
S-01A ENGINE IGNITION	168.18 SEC
S-01A THRUST ATTAINMENT (90 PER CENT PC)	169.26 SEC
BEGIN S-01A STEERING	179.87 SEC
END S-01A STEERING	336.07 SEC

SYMBOL	PAGE NO	NO. OF PAGES	SECURITY CLASSIFICATION	INITIALS
VWZD	2	8	[redacted]	

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[redacted]

U.S. GOVERNMENT PRINTING OFFICE: 1955—930479

JOINT MESSAGEFORM - CONTINUATION SHEET [redacted]

FROM:
6595TH AEROSPACE TEST WING, VANDENBERG AFB, CALIF., VWZD

ENABLE S-01A VELOCITY METER	337.42	SEC
S-01A ENGINE SHUTDOWN (VELOCITY METER)	410.14	SEC
[redacted] FADE	387	SEC
[redacted] FADE	424	SEC
[redacted] DATA FADE (LINK 1)	428	SEC
[redacted] SIGNAL STRENGTH FADE (LINK 2)	442	SEC

III. S-01A PERFORMANCE

ALL S-01A SUBSYSTEMS PERFORMED ADEQUATELY FOR ACHIEVEMENT OF THE PRIMARY TEST OBJECTIVES. ALL EVENTS, INCLUDING SOLID MOTOR BURNOUT AND JETTISON OCCURRED AT NOMINAL TIMES. MECO OCCURRED BY GROUND GUIDANCE COMMAND.

IV. GROUND GUIDANCE

GROUND GUIDANCE SYSTEM TENTATIVE EVALUATION OF INJECTION CONDITIONS AND ORBITAL PARAMETERS INDICATE: INJECTION ALTITUDE OF 81.44 NM (PREDICTED VALUE WAS 89.37 NM), FLIGHT PATH ANGLE OF +0.12 DEG (PREDICTED VALUE WAS +0.14 DEG), ORBITAL PERIOD OF 91.88 MIN (PREDICTED VALUE WAS 90.72 MIN), AND INCLINATION ANGLE OF 74.13 EX DEG (PREDICTED VALUE WAS 74.99 DEG).

V. S-01A PERFORMANCE

ALL S-01A VEHICLE SUBSYSTEMS PERFORMED

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VWZD	3	8	[redacted]	

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[redacted]

☆U. S. GOVERNMENT PRINTING OFFICE: 1966—[illegible]

JOINT MESSAGEFORM / CONTINUATION SHEET [redacted] SECURITY CLASSIFICATION [redacted]

FROM:
6595TH AEROSPACE TEST WING, VANDENBERG AFB, CALIF., VWZD

SATISFACTORILY DURING LAUNCH TO PROVIDE ADEQUATE ORBITAL INJECTION CONDITIONS AT ENGINE SHUTDOWN. AT THE TIME OF TELEMETRY SIGNAL FADE AT VTS, THE ORBITAL TIMER WAS SET AT 5440 SEC (STEP 260) IN THE [redacted] IN THE DECREASE MODE, AND ALTER- [redacted] REENTRY DISARM STATE.

VI. SPACE-GROUND COMMUNICATIONS

RECEIVED SIGNAL STRENGTH ON ALL LINES WAS SUFFICIENT TO PRODUCE ADEQUATE TELEMETRY DATA. VERLORT RADAR EXPERIENCED LOSS OF TARGET 8 TIMES DUE TO MOMENTARY BEACON TRANSMITTER DROPOUTS FOR REASONS UNKNOWN. BEACON CAPTURE BY THE DOWNRANGE SHIP RADAR COULD NOT BE PREVENTED DUE TO FAILURE OF THE ANTI-BEACON CAPTURE UNIT FROM OPERATING SATISFACTORILY.

SYMBOL: VWZD | PAGE NO. 4 | NR. OF PAGES 8 | [redacted] | NOTES

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☆ U. S. GOVERNMENT PRINTING OFFICE: 1965—[redacted]

JOINT MESSAGEFORM - CONTINUATION SHEET

SECURITY CLASSIFICATION [redacted]

FROM: [redacted]
6595TH AEROSPACE TEST WING, VANDENBERG AFB, CALIF., VWZD

VE, COUNTDOWN

LAUNCH WAS ACCOMPLISHED ON THE FOURTH COUNTDOWN. THE FIRST COUNTDOWN WAS INITIATED AT 0455 PDT ON 7 MAY 1963 AND WAS CANCELLED IN TASK 14 (S-01A PROPELLANT TANKING) AT 1405 BY RANGE SAFETY (HIGH UPPER AIR WINDS). ONE HOLD WAS IMPOSED AT T-60 MIN FROM 1408 UNTIL 1408 BECAUSE OF THE WIND CONDITION. NO OTHER SIGNIFICANT PROBLEMS WERE ENCOUNTERED.

THE SECOND COUNTDOWN WAS INITIATED ON SCHEDULE AT 0548 PDT, 8 MAY, AND WAS CANCELLED AT 0950 PDT IN TASK 9 (S-01A GUIDANCE AND CONTROL CHECKOUT) BY RANGE SAFETY (HIGH UPPER AIR WINDS). NO HOLDS WERE IMPOSED AND NO OTHER SIGNIFICANT PROBLEMS WERE ENCOUNTERED.

THE THIRD COUNTDOWN WAS INITIATED AT 0455 PDT, 17 MAY, AND PROGRESSED TO TASK 14 WHEN IT WAS CANCELLED AT 1350 DUE TO QUESTIONABLE INTEGRITY OF THE S-01A SEPARATION PRIMACORD. ONE HOLD (5 MIN) WAS IMPOSED AT 1340 TO DELAY S-01A TANKING UNTIL A DECISION WAS REACHED ON THE PRIMACORD. NO OTHER SIGNIFICANT PROBLEMS WERE ENCOUNTERED.

THE FINAL COUNTDOWN WAS INITIATED AT 0555 ON 18 MAY 1963 WITH A NO-GO STATUS, PENDING THE RECEIPT OF

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VWZD	5	8	[redacted]	

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JOINT MESSAGEFORM - CONTINUATION SHEET [redacted]

FROM:
6595TH AEROSPACE TEST WING, VANDENBERG AFB, CALIF., VWZD

INFORMATION ON LMSC PRIMACORD QUALIFICATION TESTS.
LAUNCH STATUS WAS CHANGED TO GO AT 0730 WHEN INFORMATION WAS RECEIVED FROM SUNNYVALE THAT TESTS INDICATED THE PRIMACORD WAS SATISFACTORY. THE COUNTDOWN THEN PROCEEDED TO LIFTOFF WITH TWO HOLDS TOTALLING 23 MIN.

A. HOLD NO. 1, 19 MIN DURATION, WAS IMPOSED AT 1445 (T-15) TO COMPLETE WORK WHICH HAD FALLEN BEHIND SCHEDULE DUE TO DELAYS CAUSED BY LMSC AGE UMBILICAL AND GAS REGULATOR PROBLEMS.

B. HOLD NO. 2, 4 MIN DURATION, WAS IMPOSED AT 1515 PDT (T-3 MIN) BECAUSE OF ABNORMAL T/M INDICATION OF S-01A LIFEBOAT PRESSURE AND INTERMITTENT LOSS OF DAC TELEMETRY. THE DAC PROBLEM WAS AT THE NAVY TRACKING STATION AND IT CLEARED ITSELF BEFORE LIFTOFF. EVALUATION INDICATED THE S-01A LIFEBOAT MEASUREMENT WAS WITHIN LIMITS AND CONSIDERED GO.

OTHER PROBLEMS AND DELAYS ENCOUNTERED WERE:

A. IN TAKE 4, THE S-01A BEACON SIGNAL FREQUENCY [redacted] READ 5 MC LOW (OUT OF SPECIFICATION) AND REMAINED AT THIS LEVEL THROUGHOUT THE REMAINDER OF THE COUNTDOWN. BECAUSE THE DEVIATION WAS CONSTANT

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VWZD	6	8	[redacted]	

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JOINT MESSAGEFORM - CONTINUATION SHEET | SECURITY CLASSIFICATION [redacted]

FROM: [redacted]

6595TH AEROSPACE TEST WING, VANDENBERG AFB, CALIF., VWZD

AND THE RADAR COULD BE ADJUSTED TO THE NEW FREQUENCY IT WAS DECIDED NOT TO DELAY THE OPERATION TO MAKE CHANGES.

B. DURING S-01A OXIDIZER TANKING, TASK 14, A LEAK OCCURRED AT THE COUPLING WHICH JOINS THE FLEX PORTION OF THE S-01A ACID FILL UMBILICAL TO THE GROUND PORTION OF THE ACID FILL QUICK DISCONNECT. ALL ACID ABOARD THE VEHICLE AND IN THE TRANSFER LINE WAS RETURNED TO THE TRANSFER SET. EVALUATION INDICATED THAT THE TORQUE VALUE OF THE FITTING WAS BELOW SPECIFICATION. TORQUING THE FITTING TO THE SPECIFICATION VALUE ELIMINATED THE LEAK. SOME ACID HAD RUN DOWN THE SIDE OF THE SLV-2A AND WAS OBSERVED TO HAVE BEEN RUN UNDER A TUNNEL COVER. THE BOTTOM PORTION OF THE TUNNEL COVER WAS REMOVED TO VERIFY THAT THE ACID HAD NOT CAUSED DAMAGE. THE ACID LEAK PROBLEM DELAYED THE OPERATION ABOUT ONE HOUR AND 58 MIN.

C. DURING TASK 16, THE COUNTDOWN WAS DELAYED 15 MIN TO SEND PERSONNEL TO THE PAD TO ADJUST TWO LMSC AGE GUIDANCE GAS VENT REGULATORS.

D. DURING THE FINAL 60 MIN OF THE COUNTDOWN, THE PAYLOAD SKIN TEMPERATURE READ AS TO AS DEG F

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VWZD	7	8	[redacted]	

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(SLIGHTLY BELOW SPECIFICATION). THE ABNORMAL TEMPERATURE INDICATION WAS WAIVED.

VIII. AEROSPACE GROUND EQUIPMENT

THE AEROSPACE GROUND EQUIPMENT FUNCTIONED SATISFACTORILY TO ACCOMPLISH THE BOOSTER AND ORBITAL STAGE PRE-LAUNCH CHECKOUT; HOWEVER, THE FOLLOWING PROBLEMS WERE ENCOUNTERED:

A. A [redacted] LEAK OCCURRED AT THE S-01A ACID QUICK DISCONNECT.

B. THE LMSC AGE GUIDANCE GAS REGULATORS REQUIRED REPEATED RESETTING.

IX. [redacted]

A. PAD DAMAGE.

PAD DAMAGE IS NOT CONSIDERED EXCESSIVE AND NORMAL TURNAROUND SCHEDULE CAN BE MAINTAINED. A SMALL AFTER FIRE OCCURRED AT THE BASE OF THE LAUNCHER WHICH WAS EXTINGUISHED BY THE PAD DECK FLUSH.